



South Coast Air Quality Management District

Engineering & Compliance

*Policies &
Procedures*

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MEMORANDUM

DATE: October 19, 1987
TO: Combustion Unit Engineers
FROM: Mark Y. Liu, Acting Supervisor /s/ Mark
SUBJECT: Processing Applications for Hexavalent Chromium Tanks

We need to take following prompt actions for those Cr+6 tanks that were installed without a Permit to Construct.

1. Gather the process data as shown on the attached list and use the attached test data to estimate the uncontrolled Cr+6 emissions from the tank.
2. Gather the information on the scrubber (as on the attached list) to estimate the control efficiency of the scrubber (if any).
3. Estimate the maximum individual cancer risk by using the screening method in proposed Rule 223.
4. Follow all the guidelines in my 9/18/87 memo (attached) to process the application.

Please do not hesitate to recommend denials if you find the risk is over 10 in a million, which I suspect will be the case for many.

myl.memo 1019
cc: Marty Kay

Essential Data For Processing Cr+6 Tanks

1. Reason for this Application
2. Date tank was installed
3. Tank size (Inside) Width Length Depth
4. Electricity Applied KVA
5. Chromic Acid Concentration
6. Operating Schedule
7. Scrubber Packing Volume Height Depth
8. Packing Type
9. Mist Eliminator Type
10. Stack Height

THIS MEMO NO LONGER APPLIES

Hexavalent Chromium Emissions^a From Chrome Plating Operations

	Uncontrolled (gr/hr)	Controlled (gr/hr)	Current (amps)	Surface Area (ft ²)	Plating Type
Able Machine	76	1.2 ^b	6,387	56	Hard
Steel Heddle	47	1.3 ^c	3,447	72.5	Hard
Greensboro Ind.	29.1	3.8 ^d	6,223	63	Hard
Carolina Plating	23.6	1.7 ^e	11,276	92	Hard
Naval-Long Beach ^f	9.0	0.77 ^g	4,275	119	Hard
Naval-Virginia	9.2	0.45 ^h	2,480	NA	Hard
Pamarco	4.1	2.3 ⁱ	2,300	55	Hard
C.S. Ohm Mfg.	0.219 ^j	0.043	23,707	45	Dec.
Tarby	9.97	0.299 ^k	7,000	106.5	Hard
Plato Products	0.0189 ^l	0.0077 ^m	1,300	15	Hard

- a. Data reported as total chrome were considered hexavalent chromium
- b. With dual mist eliminator
- c. With packed-bed scrubber
- d. With mist eliminator
- e. With packed-bed scrubber
- f. Assume emissions from one decorative chrome tank is negligible compared to other three hard chrome tanks
- g. With packed-bed scrubber
- h. With mist eliminator
- i. With packed bed scrubber
- j. Data from impinger train
- k. With cross-flow packed bed scrubber, 1-ft. packing, and 8-in. Chevron mist eliminator
- l. With ¼ -in. polyethylene balls floating on solution surface
- m. With cross-flow packed-bed scrubber, 6-ft packing, 8-in. sine-wave mist eliminator, and Kimre filter.